

Commissioner for Patents

AMENDMENTS TO THE SPECIFICATION

[0065] Retraction velocity is also performed in open loop, predetermined and input by the operator as shown in block 200. The open loop control mode is particularly used when a small product is cast because the injection system needs a certain minimum of stroke to be able to react on and profile the injection when the closed loop control mode is used. When a small product has to be cast on the machine, requiring an injection stroke smaller than the minimal stroke, the operator can simply switch the injection system from the closed loop control mode to the open loop control mode, instead of having to proceed with effecting a major change to the gooseneck to install a smaller diameter sleeve which will require a longer stroke to fill the same product. This advantage compared to conventional machine allows the machine to be more flexible in operation. As shown in Figure 12, when the open loop control mode is activated, the solenoid valve 242 is automatically activated to enable the reduced injection pressure pre-set on a pressure reducing valve 244. The solenoid valve 242 is deactivated in the closed loop control mode and the hydraulic fluid is supplied to the injection system under full pump pressure, which is manually adjusted by a pump pressure regulator 246 mounted on the pump 248. The pump 248 is driven by a motor 250A. The reduced injection pressure set on the pressure reducing valve 244 for the open loop control mode is adjusted manually only before an injection cycle begins.